

R E M A R K S

Claims 1-46 are pending in the application. Claims 1-46 are rejected.

Claims 1-46 were rejected under 35 U.S.C. § 112 second paragraph, as being indefinite.

The independent claims are amended herein to clarify applicant's claimed invention. It is respectfully requested the rejection be withdrawn.

A new title is included. The new title is substantially as suggested by the Examiner.

Claims 1-3, 23 and 32 were rejected under 35 U.S.C. § 102(e) as being anticipated by Ihara (U.S. 6,336,073: equivalent to Japanese laid-open application publication (Kokai) JPAN: 2001-41759).

Claims 4-22, 24-31 and 33-46 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ihara in view of Gale (U.S. 6,487,495).

Applicant's claim 1 recites a feature that a server comprises:

(a) a database, which holds a specific information document as bubble data. The specific information document has index information composed of a plurality of elements. The one specific information document is selected out of information documents having attribute information representing attributes of service information to be provided. Spatial range information in three-dimensional space is associated with retrieval information for obtaining the service information.

Therefore applicant claims both attributes of service information and spatial range information in three-dimensional space.

(b) A retrieving unit retrieves specific bubble data, which includes coordinate information and display object attribute information. The retrieving unit retrieves above specific bubble data based on a mapping request. The mapping request has the coordinate information on

an object (which is displayed on the map) and the display object attribute information (which represents attributes of service information to be provided by the object), the mapping request (which is transmitted from the user terminal) and,

(c) a notifying unit notifies the user terminal of a mapping response, which has the spatial range information, the attribute information and the retrieval information. The attribute information and the retrieval information are included in the specific bubble data, which is retrieved in the retrieving unit.

Applicant's claimed invention provides at least the distinguishing features of the spatial range information, composed of latitude, longitude, altitude, and the bubble diameter of the object.

This is different from the cited references for at least the following reasons:

Ihara

Ihara describes a system where a user terminal makes a request to a specific information service center for point information showing detailed points of interest (POI) along a route. As disclosed in column 7, lines 36-40 of Ihara, POI is a point of an area that a user is concerned with or interested in (e.g. tourist attraction, hotel, restaurant, firm). The POI shows some sightseeing points or hotels for users of the system (supported in paragraphs 0032 and 0053, Fig. 7B of JPAN: 2001-41759).

In Ihara the information service center provides to the user terminal a plainly or three-dimensional point information (POI information) in a tag format showing the important point or points. Thus utilizing the tag format Ihara can indicate each of the important points on the route the user requested. With the aid of the tag format, the user terminal displays various point information with mapping-data and a route guidance from a starting point to a destination.

In the Office Action item 4 in page 4, it's asserted that Ihara teaches, "a database for ... as bubble data in which spatial range information (PoS) in a three-dimensional space..." Applicant' respectfully disagrees with this position. Applicant's claimed invention provides specific bubble data including coordinate information, and display object attribute information and said spatial range information, said attribute information and said retrieval information being included in the specific bubble data which is retrieved in the retrieving unit.

In Ihara, neither of the specification or Figs. 7, 9-10, 12 and 14 mention nor even suggest a bubble diameter of an object. An example of this object is buildings, information on a menu of a restaurant or an eat-and-drink shop in the building.

Ihara teaches that POS-type is defined as an information type, as supported in column 10, line 65 – column 11 line 15 and Fig. 7(C). As pointed out above Ihara describes POI as a point that a user is concerned with or interested in.

With regard to claim 4 for example, the Office Action asserts that Ihara is silent on the measure of the third dimension. "Thus Ihara does not explicitly teach that the spatial range information includes altitude, but does explicitly teach that a third dimension is used." However there is no mention of the bubble diameter of an object.

For at least the foregoing reasons it is respectfully submitted Ihara fails to teach any spatial range information which includes the bubble diameter of the object.

Gale

Gale describes a system where a keyword is used by a user when specifying a physical location instead of specifying a physical location such as by street address. Thus when a user requests navigation or map-related functions from an application program (application software) running on navigation systems a easy keyword may be utilized.

In Gale, the application uses the keyword, or a copy thereof, to find data indicating the physical location associated with the keyword specified by the user. It's asserted in the Office Action that the invention Gale may be utilized an altitude as the optional third coordinate in Ihara's system.

However, Gale does not mention a bubble diameter of an object in a three-dimensional space is associated with address information for obtaining the service information. In addition there is no description in Gale that a server retrieves a DTD information based on e.g. a south direction (position information), a 50-meters-range there from (retrieval distance range), and a restaurant (attribute information) in a mapping request from a user terminal (supported in page 114).

With the present claimed invention, the user can obtain information on buildings within e.g., 1 100-m-range from a position of the user (service 1). The user also can obtain information on a building that first comes into user's view (service 2) supported in pages 32-33.

Although Gale et al. uses the keyword maintenance program that allows a person to specify the geographical coordinates including latitude, longitude and optionally altitude, the Gale et al. invention is not in the same field as the Ihara et al. invention as well as the present invention and should not be combined with Ihara et al. as suggested in the Office Action.

It is respectfully submitted that there is no suggestion which would lead one skilled in the art to make such a combination of prior art. Thus even if all the elements were present in the cited references, it is well-established that a combination of limitations, some of which separately may be known, may be a new combination of limitations which is nonobvious under the condition of 35 U.S.C. 103.

Moreover, “an examiner may often find every element of a claimed invention in the prior art.” In re Rouffet, 47 USPQ3d 1453, 1457 (Fed. Cir. 1998) (reversing PTO obviousness rejection based on lack of suggestion or motivation to combine reference). Therefore even if every element of a claimed invention is in the combined prior art there must be some suggestion or motivation to combine the references. “Although a reference need not expressly teach that the disclosure contained therein should be combined with another, the showing of combinability, in whatever form must nevertheless be ‘clear and particularity.’” In re Dembiscak, 175 F.3d 994, 999 (CAFC 1999).

Other References

In the Office Action twenty-one references are mentioned (c) – (u) are referred to in addition to Ihara and Gale, and equated in particular Kambe (U.S. 6,487,305) and Hirono (U.S. 6,263,343) as well as citations partially related to the present claimed invention.

It is respectfully submitted that none of the other cited references (c) – (u) describes or suggests that the spatial range information is composed of latitude, longitude, altitude and the bubble diameter of the object.

Furthermore, an information bubble has a size in conformity with a size of a building and basic information, as supported in page 33 and 54, for example, of applicant’s specification.

Unlike the cited references a bubble diameter of an object in a three-dimensional space is associated with address information for obtaining the service information.

In addition, each tag stored in the database, is rewritable (page 85, line 17), recorded values of latitude, longitude and altitude can be updated by e.g. updating unit 61c (page 85, line 14) at any time, when the server-receives a message sent from the object moving in the three-dimensional space (supported in page 32 line 18 etc.).

Other cited references

In Kambe, a deformed map automatic generation system is disclosed. Firstly, from the viewpoint of a database, the system determines an area of a road, and a pair of boundary points is connected with each other through a connecting line segment.

Secondly, from the viewpoint of positional relationship stored in database, a relationship between a distance from a starting point of the road to a target object and a distance from an end point of the road to the target object is added to the particular map information.

Thirdly, from the viewpoint of user terminal, a map information generated by the system and related information related to the map information are efficiently provided for a small sized user terminal having a radio communication function in response to a retrieval request transmitted from the user terminal to easily realize the map information and the related information.

Hancock (U.S. 5,839,088) merely discloses an apparatus for detaining grid and proprietary addresses of selected locations within a geographical area. In Hancock, the grid addresses are defined in relation to a grid and can be easily converted to global coordinates defined in relation to a known global referencing system, and the proprietary addressed are unique to the geographical area.

In Sakamoto (U.S. 2001-0026276), a map display devise receives various information from an external system and a map data arranging unit arranges in a map space object models each indication those various information.

With this, various time-varying information are appropriately arranged for display on the map image to make a user intuitively understand what those information mean.

Machii (U.S. 6,324,467) merely discloses an information providing system which disallows all details of a map to be downloaded, if the size of a free area in a memory employed in a terminal becomes small. A server has a search engine for searching a map database for a map storing e.g. a destination and a present position of the terminal as received from the terminal. With this, a guide route from the present position to the destination is computed to be transmitted to the user terminal.

Barros (U.S. 6,307,573) merely discloses a computer controlled graphic display system, which permits selective control of display so that complex data and data flows can be seamlessly accessed with enhanced cognition of salient information by the user.

Darcie (U.S. 6,577,714) merely discloses a map-based directory system. One or more users are presented with a map on a computer screen. The map has symbols indicating real world locations such as buildings, streets, parks, and bodies of water as well as symbols indicating virtual locations. With this, the users can locate listings in conjunction with both real and virtual locations related to such listings.

Hirono (USPA: 2001/0044802) and Hirono (U.S. 6,263,343) both disclose a device for displaying map data and related data permitting easy enlargement of the scope of application of map-based data services.

Hancock (U.S. 5,839,088) merely discloses an apparatus for defining grid and proprietary addresses of selected locations within a geographical area and the grid addresses are defined in relation to a grid and can be easily converted to global coordinates defined in relation to a known global referencing system.

Also, in Hancock (U.S. 6,202,023), a client computer system connects with a server coupled to a computer network, such as Internet. Upon connection, the client automatically

transmits the electronic data packet to the server. The primary server maintains a database that contains a list of enhanced services. The information in the data packet is used to formulate a database query. The result of the database query is an address of a particular enhanced server that matches the client's request.

Hayashi (U.S. 2002/0059296) merely disclose a route calculation server receives starting point data and destination data corresponding to a starting point and a destination which a user designates by the user terminal, and calculates a route from the starting point to the destination.

Kenyon (U.S. 2002/0067353) merely discloses apparatus for distributing and displaying maps. This apparatus involves delivery of maps that are not dynamically generated. An area serviced by a map server is divided into fixed zones for which there are static map tiles.

Sklar (U.S. 6,243,094) merely discloses a clustering user interface which relates to computer database searchers, and provides an improved interface for performing computer database searches and filtering search results. Using item labels, the categories for which item labels are shown, are selected from the smallest categories to the largest.

In Chan (U.S. 6,381,603), a system for accessing local information in a database is disclosed. The database stores a merchandise information including (i) identifier of information provider, (ii) identifier information, (iii) position information searched with GPS, and (iv) description information.

Nakano (U.S. 2001/0003815) merely discloses a internet-based information retrieval service system. A server S1a retrieves data corresponding to information-retrieval input information which is inputted from an information terminal T, from the retrieval database S1b according to the inputted information.

Further, Nakano (U.S. 6,532,475) merely describes a map information providing system capable of quickly and efficiently obtaining desired map information at a terminal device connected to a network such as the Internet and a map information searching.

Musk (U.S. 6,148,260) merely discloses a network accessible service which integrates both a business directory and a map database. Using aspects of the map database, the search becomes quantified.

Bilden (U.S. 6,012,016) merely discloses an apparatus for managing well production system suitable for oil and gas wells. Using a geographic user interface, the system can aid in the analysis of well production.

In Imielinski (Entitled: “GPS-Based Geographic Addressing, Routing, and Resource Discovery”), a GPS can be used to give every terminal a geographic address for multicasting to and from recipients within specified geographical areas.

In Leichsenring (Entitled: “A Location-Aware Graphical BBS for Mobile Environments”), a graphical BBS which can handle a user’s current location. Each BBS comment has a valid time and an influence area decided automatically. The user’s location influences the system based on the user’s movements to display comments on the user’s screen.

Claims 2-3, 5-19, 21-22, 26-29, 34-42 and 45-46 are dependent from amended claims 1, 4, 20, 23-25, 30-33, 43 and 44 to directly or indirectly and claims 1, 4, 20, 23-25, 30-33 and 43-44 should be allowed because they recite the above features and additional features.

For at least the foregoing reasons, the subject matter of amended independent claims 1, 4, 20, 23-25, 30-33, 43 and 44 do not read on above cited references (a) – (u) and should be worth patenting.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,



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